From: POULSEN Mike

To: <u>Eric Blischke/R10/USEPA/US@EPA</u>

Cc: Chip Humphrey/R10/USEPA/US@EPA; Burt Shephard/R10/USEPA/US@EPA; Bob Dexter

Subject: RE: Friday morning telecon on background tech issues

**Date:** 05/08/2008 12:24 PM

## Eric -

In my jet-lagged haze, I misunderstood, and thought the call on Friday was limited to agency people. If the issues are getting close to resolution, it is probably fine that we have the discussion with the LWG. However, I want to make sure that the agencies are at least in general agreement on some of the issues.

## - Mike

ND substitution - It sounds like we are in agreement if John is now OK with using ProUCL, which would be my recommendation. I'm not sure if this is a change from the 1 May meeting, because the notes say that it was agreed that ND substitution would be based on Helsel 2005. I've read his book, and I have a fundamental issue with regression on order statistics, which Helsel promotes. The LWG used ROS in their Round 2 report. ROS is based on the assumption that the distribution of NDs matches the distribution of detected data. I contend you do not, and will not, know if this is true. EPA's guidance expresses the same concern. They do include ROS in ProUCL, at least for completeness, but in most cases I think EPA will recommend using Kaplan-Meier. Helsel includes Kaplan-Meier in his book, so in that case you might say that using the K-M approach is consistent with Helsel 2005. I would feel much more comfortable, though, if we say the LWG should follow EPA guidance. We may already have agreement on this; I just want to be sure.

Identification of outliers - This is our only remaining issue, according to John. EPA guidance is forceful about the need to identify outliers in a background dataset, but acknowledges that some judgment is needed beyond the straight mathematical treatment. I think it is clear, though, that the agencies should be skeptical about leaving outliers in a background database. I think we can resolve this by saying we will be open to an LWG's presentation of why outliers should not be omitted. Open, but skeptical.

Organic-carbon normalization - Jennifer and Matt have concerns about this. For nature and extent evaluations in the study area, we are not normalizing. So including it in the background comparison could be inconsistent. At best, I might think it OK if they do evaluations with and without normalizing, and we see what the results tell us.

Data sets - I'm not sure I know enough of the details to add much here, if there is still a question. I'm hoping this will not be hard to resolve.

Another lingering concern of mine - For PRGs, the meeting summary notes say that the comparison might be of the UCL of the mean, the UCL of the distribution, or something else. We should not be comparing the UCL of the mean or the UCL of the distribution. EPA guidance is to compare means of the distributions. Last year I looked at all sorts of other ways to come up with a determination of background, such as upper percentiles, upper prediction limits, and upper tolerance limits. I ran into major issues with each one of these, and kept coming back to EPA guidance about comparing means. I say we stick with guidance.

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----Original Message----
From: Blischke.Eric@epamail.epa.gov
[mailto:Blischke.Eric@epamail.epa.gov]
Sent: Thursday, May 08, 2008 9:45 AM
To: Shephard.Burt@epamail.epa.gov; POULSEN Mike; Bob Dexter
Cc: Humphrey.Chip@epamail.epa.gov
Subject: Fw: Friday morning telecon on background tech issues
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The discussion is confirmed for 9:00 am. This may not take too long.

## Eric

---- Forwarded by Eric Blischke/R10/USEPA/US on 05/08/2008 09:44 AM

"Keith Pine" <kpine@anchorenv .com>

05/08/2008 09:07 AM Eric Blischke/R10/USEPA/US@EPA

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Subject

Friday morning telecon on

background tech issues

Hi EricThe LWG tech folks that were identified to participate in the background issues technical discussion with Bob Dexter, Mike Poulsen, and Burt Shephard are available to teleconference at 9:00 this Friday morning (5/9/08). John Toll, Carl Stivers, Suzanne Replinger, and Bill Locke will be represe The LWG' teleconference line will be available ( Non- PIN = Non- Non- Now. Keith Pine Anchor Environmental, L.L.C. 1423 Third Avenue, Suite 300 Seattle, WA 98101-2177 Phone: 206-287-9130 Fax: 206-287-9131